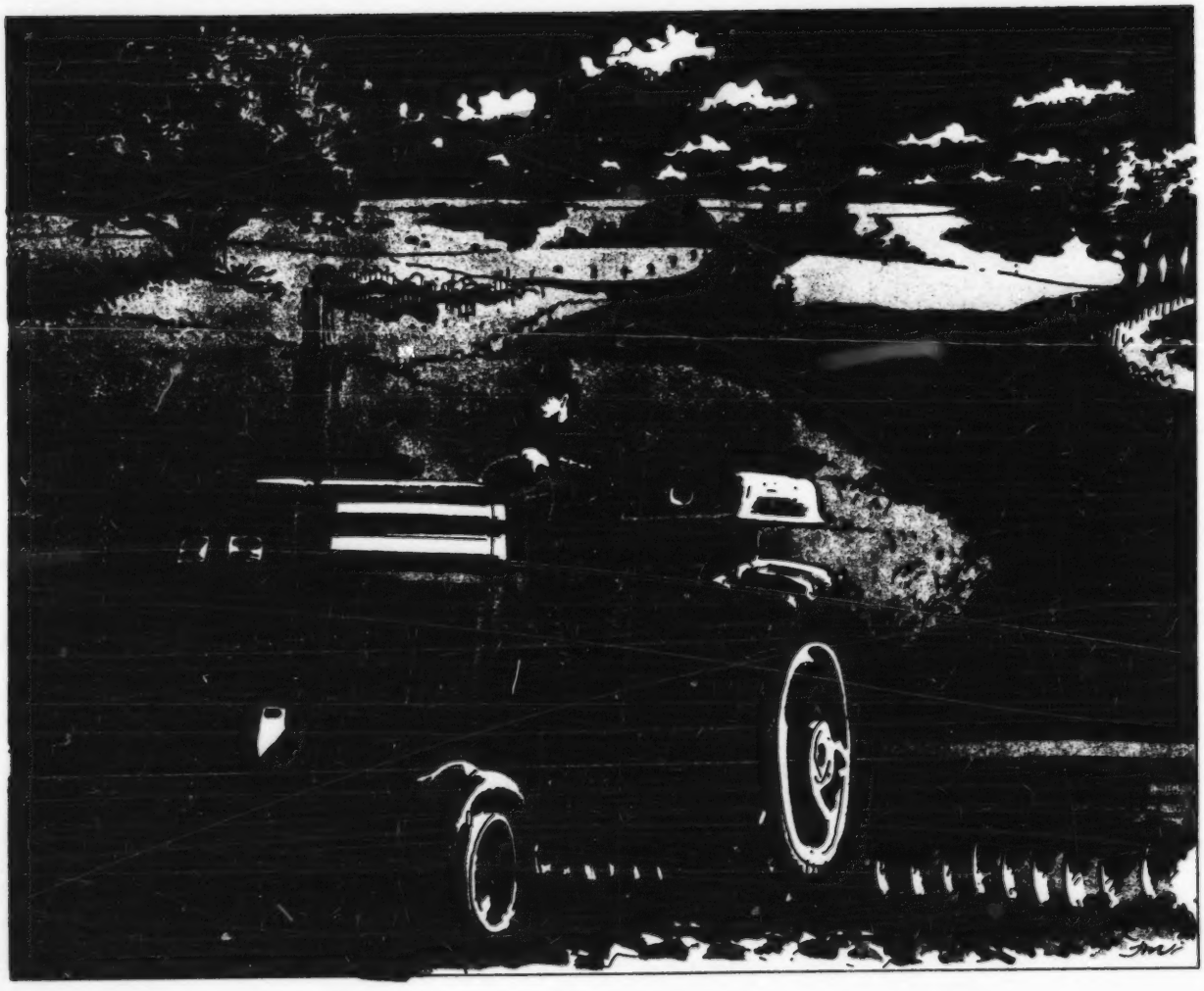
Manitoba Agricultural Review 1986



Manitoba
Agriculture
Economics

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DATA SOURCES: Agriculture Canada
Farm Credit Corporation
Manitoba Agricultural Credit Corporation
Manitoba Agriculture
Manitoba Bureau of Statistics
Statistics Canada

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MANITOBA AGRICULTURAL REVIEW

INTRODUCTION

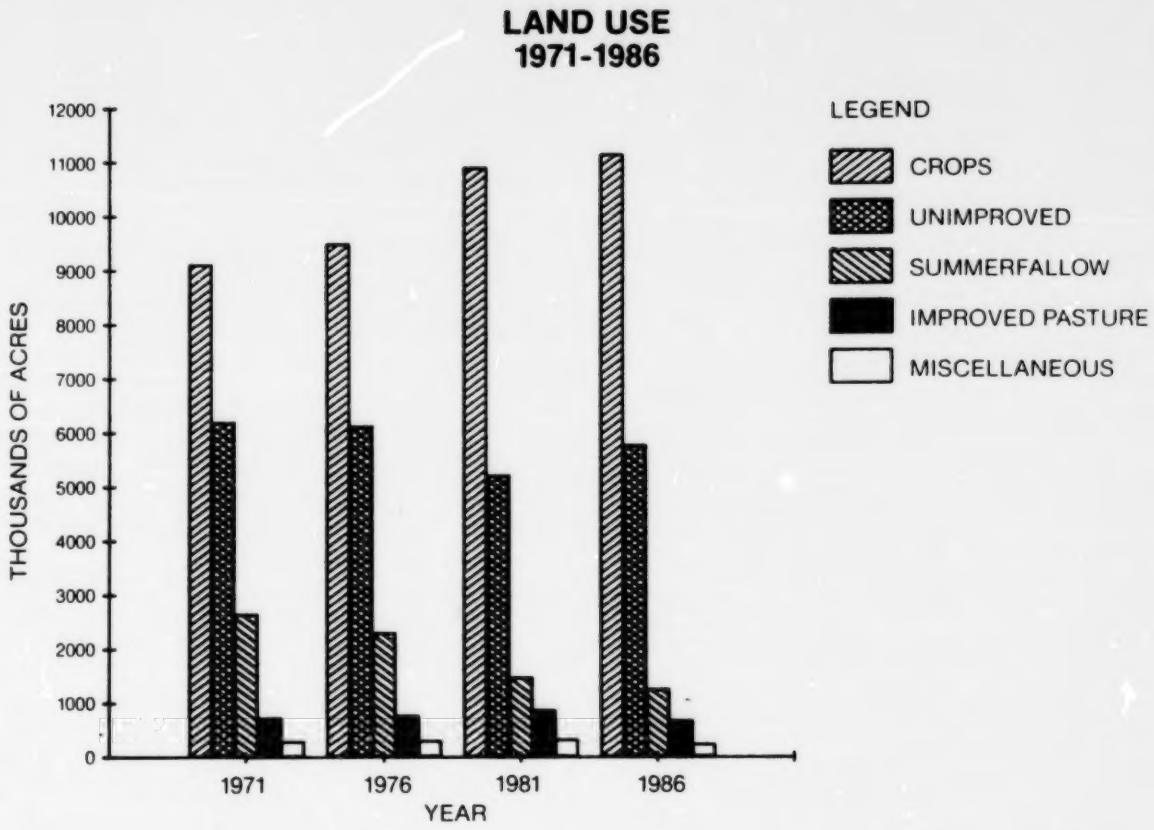
The major focus of this paper is on primary agriculture. However, farming obviously cannot exist in isolation. It is an integral part of the total agriculture-food system which also includes manufacturing, processing, transportation, distribution and wholesale/retail trade. Agriculture makes an important contribution to Manitoba's overall economic activity, both in its production and consumption. Between 1981 and 1986, agriculture and related industries contributed an average of 12 per cent to the provincial Gross Domestic Product (GDP) at factor cost. In Manitoba, one job in six depends on agricultural production. In addition to stimulating employment locally, agriculture in Manitoba is directly responsible for about 30,000 jobs in other parts of Canada.

PRIMARY AGRICULTURE

LAND RESOURCE

Manitoba extends for 761 miles from the U.S. border to the Northwest Territories. Its area is 167 million acres. The total land area is 135.5 million acres, of which 36.2 million acres (26.7 per cent) has some agricultural potential. Over 23.6 million of these acres are nonorganic soils, and 13.4 million acres of these are suitable for sustained annual production of cultivated crops. Land use for agriculture in 1986 (both improved and unimproved land) totalled 19.1 million acres, or over 50 per cent of total lands with agricultural potential. In 1986, 11.17 million acres were seeded to crops, 1.26 million acres were summerfallowed and 0.7 million acres were improved pasture lands. A further 0.3 million acres of improved land has the potential for annual cultivation.

Further opportunity to expand the agricultural land resource base through greater use of organic soil areas also exists. Approximately 12.6 million acres of organic soils are in the non-permafrost or fringe agriculture zone of Manitoba. Potentially 1.5 million acres of these soils could be used for grain or special crop production. Another 0.5 million acres of organic soils could be easily developed and brought into forage crop production. About 0.5 million acres of organic soils are currently under cultivation.



Datasource: Statistics Canada

FARMS AND FARMERS

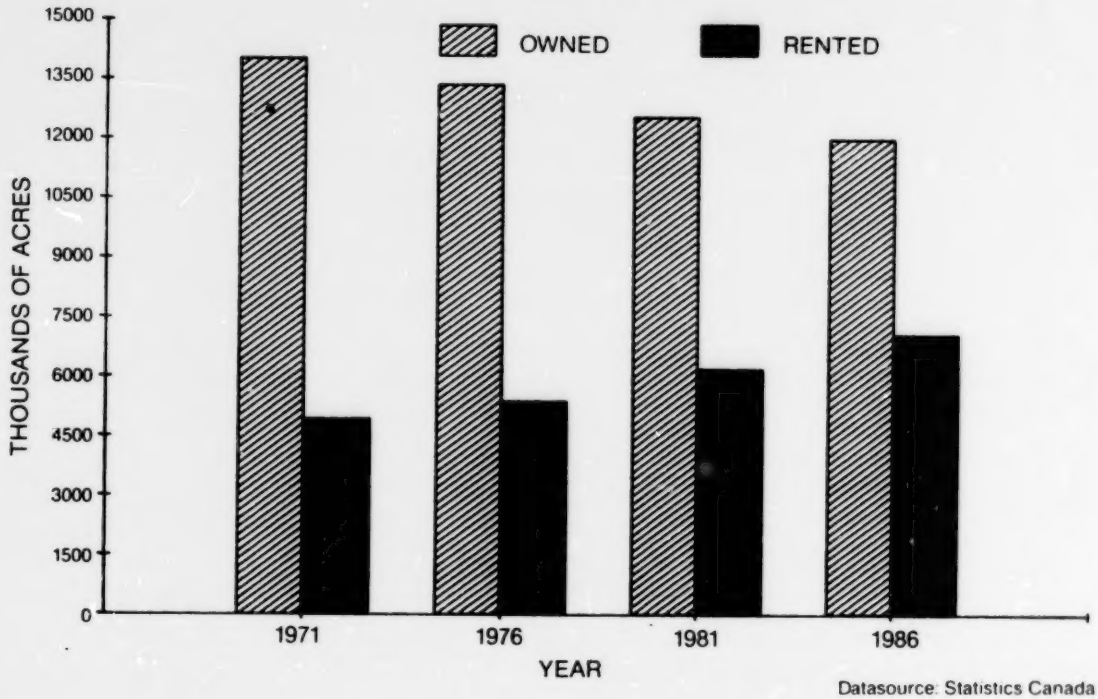
In 1986 Manitoba had 27,336 farms with sales of $250 or more. The average farm size was 700 acres. The number of farms declined by 7.2 per cent between 1981 and 1986, reflecting the continued trend towards farm consolidation. In 1986, 63 per cent of Manitoba farmland was operator-owned, while 37 per cent was rented land. The area of rented land has increased by 866,000 acres or 14 per cent since 1981.

The 1986 Census of Agriculture showed that 22 per cent of farm operators were less than 35 years old, a decrease of 3 percentage points from the 1981 level. Eleven per cent were 35 to 39, 33 per cent were 40 to 54, and over 33 per cent were 55 years and over. In 1981, 30 per cent of farmers were over 55 years. Although the total number of farm operators declined between 1981 and 1986, the number of producers with sales of $10,000 or more was the same in both years. The total farm population in 1986 was down seven per cent from the 1981 level. Approximately one Manitoban in 12 lived on a farm in 1986 compared with one in ten in 1981.

The 1986 Census showed that Manitoba farmers hired a total of 342,706 weeks of full-time and part-time labour. This represents a 38.3 per cent increase in the number of weeks of hired labour since 1981 and a 28.7 per cent increase in the number of farms reporting hired labour. Over 51 per cent of hired help was employed on a part-time basis. In general, a shift away from year-round hired labour to more seasonal task-specific term employment was evident.

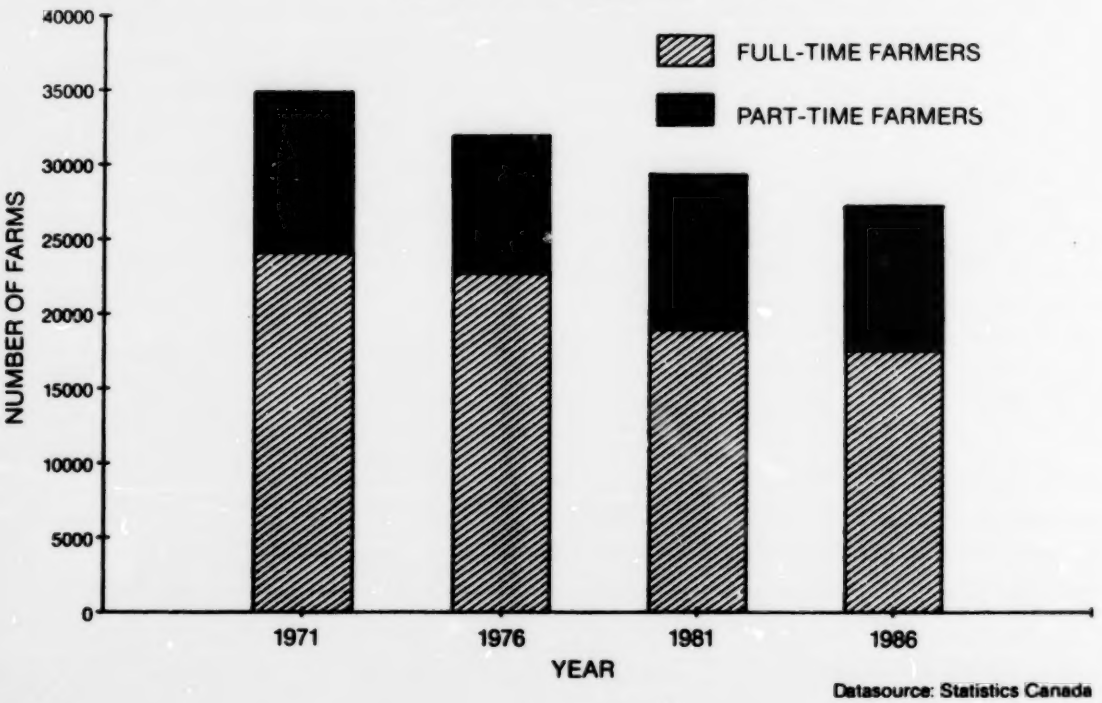
The number of days which farm operators worked off the farm in 1986 totalled 1,536,485 days, a decrease of 4.3 per cent from 1981. During the same period, although the number of farms where the operator reported off-farm employment decreased by 5.7 per cent to total 9,714 in 1986, the proportion of all farms with the operator reporting off-farm work increased from 35.0 per cent in 1981 to approximately 35.5 per cent in 1986. Off-farm employment by Manitoba farmers is common and could continue to expand as labour requirements of the farm decline and as economic conditions pressure producers to find supplementary sources of income. Beginning farmers may also use this as an alternate way of entering full-time farming.

TENURE STATUS OF FARMLAND 1971-1986



Datasource: Statistics Canada

FARMS CLASSIFIED BY WORK STATUS OF OPERATOR, 1971-1986



Datasource: Statistics Canada

FARM INCOMES

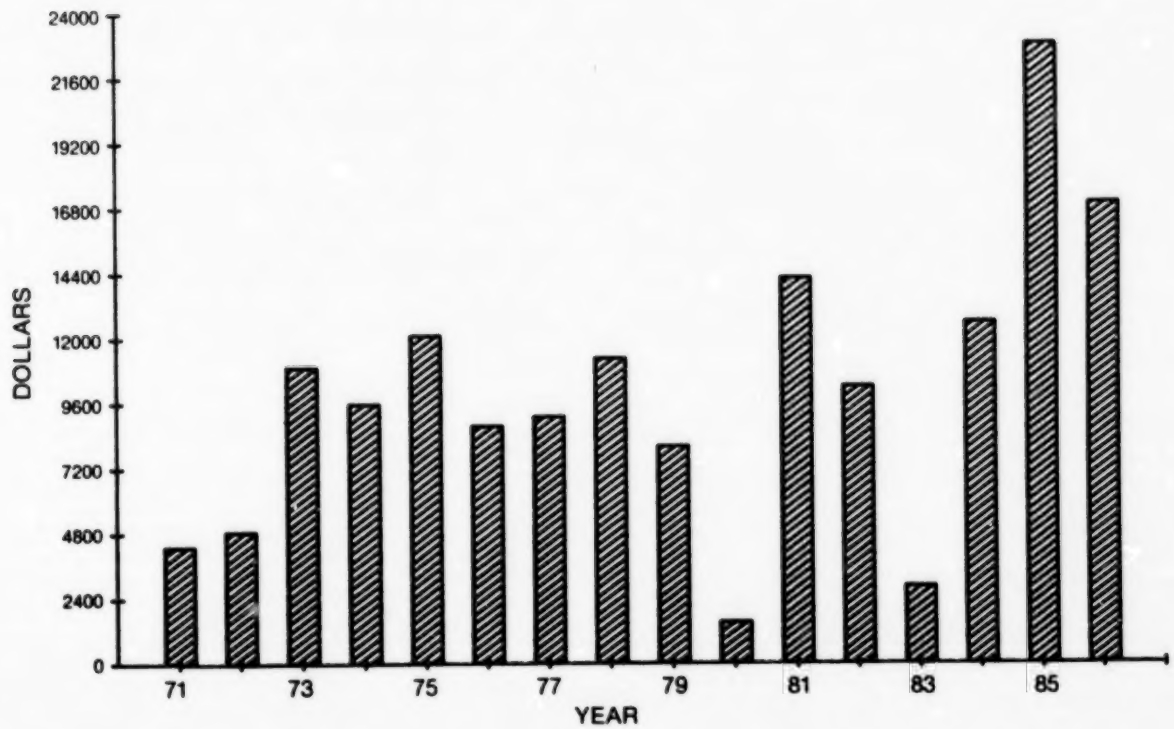
Farmers have very little control over the prices they receive for most of the commodities they produce. Increasing production costs, dependence on the weather and variable commodity prices make farming a risky business. Realized net farm income (cash flow) in Manitoba increased from $353 million in 1984 to $365 million in 1985 and $503 million in 1986. Preliminary projections indicate that with government assistance to grain producers, farmers will net $531 million in 1987, an increase of 5.5 per cent from a year earlier.

Total net income (net cash income adjusted for inventory change) per farm was $14,207 in 1981. This fell to $2,864 per farm in 1983 and peaked at $22,890 per farm in 1985 due to bumper crops and an inventory build-up. In 1986, total net income averaged $17,030 per farm, due in part to reduced on-farm inventories.

FARM FINANCIAL DIFFICULTIES

High real interest rates, low commodity prices, adverse weather conditions, a declining equity land base in recent years and management problems have all contributed to the current financial difficulties experienced by many Manitoba farmers. An estimated 15.2 per cent of Manitoba farmers are in a financial situation which makes continuing their operation uncertain. About 4.6 per cent of all farms are considered to be nonviable, 5.6 per cent are classified as deteriorating financially, and 5.0 per cent are financially vulnerable. Manitoba's position is considered to be better than that of Saskatchewan and Alberta where 16.2 and 15.5 per cent of farmers respectively are in financial difficulties.

TOTAL NET INCOME PER FARM, 1971-1986



Datasource: Statistics Canada

CAPITAL INVESTMENT

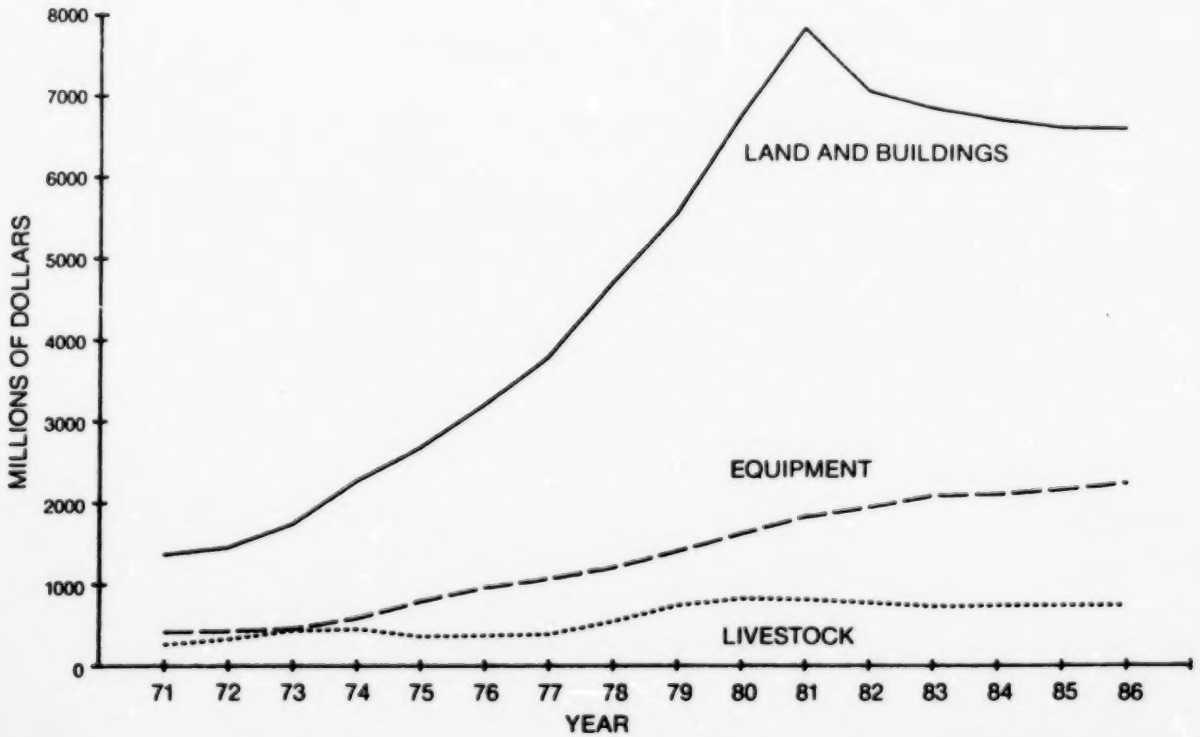
The total value of fixed capital used by Manitoba farmers in 1986 was over $9.5 billion, or $349,500 per farm operation. This included $6.6 billion (68.9 per cent) for land and buildings, $2.2 billion (23.3 per cent) for machinery and equipment and $0.7 billion (7.7 per cent) for livestock and poultry. Since 1981, when land values peaked, the fixed capital investment in Manitoba agriculture has decreased by almost nine per cent.

A noticeable shift has occurred in the distribution of capital investment. Land and buildings now account for 69 per cent of total investment. This compares with 75 per cent in 1981, and about 70 per cent in 1976 for the same components. The change in the contribution of land to total investment can be attributed to the escalation of land prices in the late 1970s, because of increased investment in land, followed by a decrease in land values in the mid-1980s. In 1986, the average price of farm land sold in Manitoba was approximately $351 per acre, seven per cent below the 1985 level of $376 per acre. Between 1971 and 1981, capital investment in Manitoba agriculture more than doubled every five years. However, since 1982, high real interest rates and low commodity prices have slowed capital investment growth in farming. Farm machinery sales in the province have also suffered.

In 1985, the ratio of Manitoba farm debt to capital assets was estimated at 0.215. As of December 1985, Manitoba farmers had total assets estimated at $8.8 billion, liabilities of $1.9 billion and a net worth of $6.5 billion. Short-term liabilities accounted for about 21.5 per cent of total debt, while intermediate- and long-term liabilities were about 25.7 and 52.8 per cent respectively. Chartered banks financed approximately 45 per cent of the total farm debt in Manitoba in 1985. The provincial and federal governments, through agencies such as M.A.C.C. (Manitoba Agricultural Credit Corporation) and the F.C.C. (Farm Credit Corporation), financed 12 and 22 per cent of the provincial farm debt respectively. Credit unions financed 11 per cent of farm debt, while personal sources of credit, along with trust and insurance companies, accounted for 10 and 0.4 per cent respectively.

In 1985, the average Manitoba farm had total assets estimated at $320,980, liabilities of $69,150 and a net worth of $251,830. By enterprise type, cash crop, dairy,

CAPITAL INVESTMENT IN AGRICULTURE
1971-1986



Datasource: Statistics Canada

hog and beef operations had equity to asset ratios of 0.85, 0.68, 0.62 and 0.84 respectively. Assuming farm sales are used as a proxy for farm size, then total liabilities as a percentage of total assets increased as the total value of farm sales increased. This percentage rose from a low of 10.9 per cent for small farms (less than $26,500 farm sales) to a high of 20.9 per cent for larger farms (farm sales over $79,700).

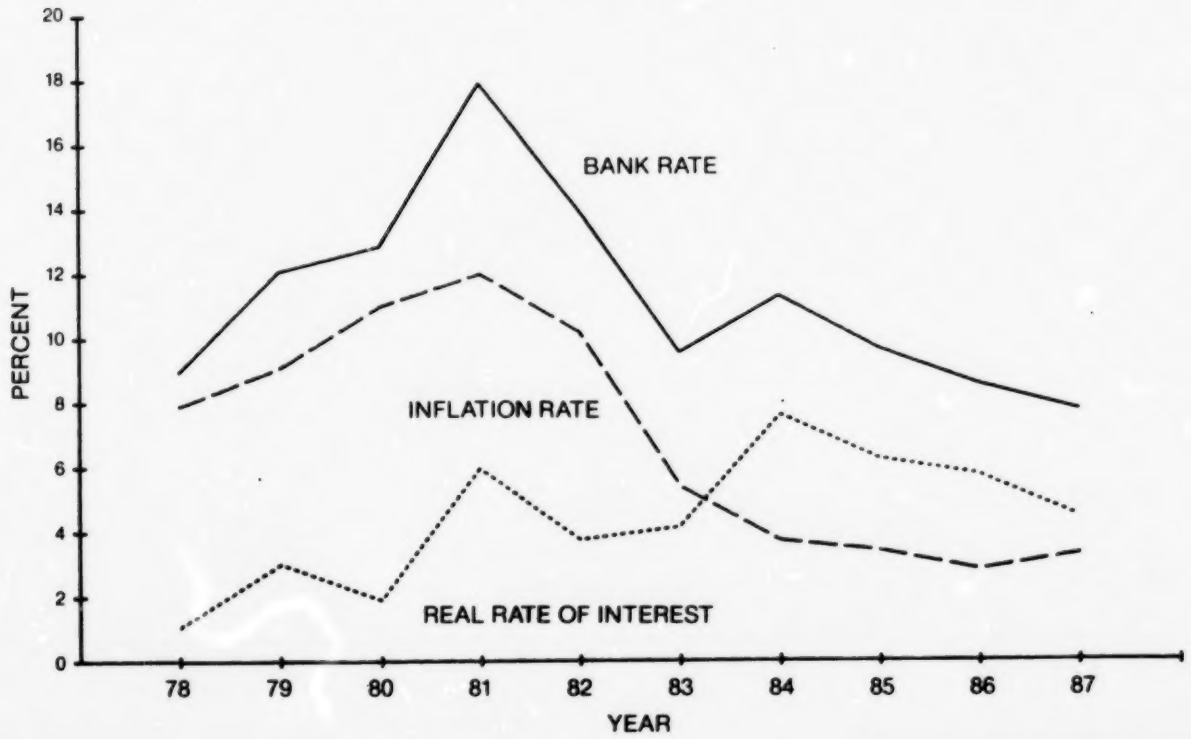
Established farmers who own their land and have low debt to asset ratios will likely survive the current economic situation facing agriculture. However, younger beginning farmers or others with low equity face a much more difficult financial situation. New farm operators have limited finances to become established in farming. Their low equity makes them a high risk to lending institutions. In many cases, M.A.C.C. is the only source of financing for these higher-risk farmers.

Of the 412 farmers who had loans approved by M.A.C.C. in 1986, 87.2 per cent were younger than 35 years. About 35.7 per cent of those who received loans were less than 25 years old and had an equity position of less than 35 per cent of the total capital invested in their farm enterprises. Almost 51.5 per cent of farmers were aged between 25 and 35 and had an average equity position of 51 per cent, while those farmers over 35 had an equity position of 55 per cent. Because of weak commodity prices and the high cost of borrowing, farmers with low equity could face a serious challenge in continuing their farming operations.

Due to increased financial pressure, some farmers are shifting their debt structure from short- and intermediate-term to long-term to ease their repayment burdens. As farms become larger, operating debt financing becomes more important in their cost of operation.

The interest paid on farm debt in 1986 was estimated at $162.3 million. This was up by 1.1 per cent from 1985. Interest on debt as a percentage of total farm operating expenditure decreased from 17.5 per cent in 1981 to 11.6 per cent in 1985, but rose to 12.1 per cent in 1986. As interest forms a significant percentage of total farm operating expenditures, it appears that a high equity position could be as important as operating efficiency to assure continued solvency.

BANK RATE-INFLATION RATE-REAL RATE OF INTEREST 1978-1987



Datasource: Bank of Canada Review

OTHER AGRICULTURAL EXPENDITURES

Manitoba farmers have substantial operating expenditure requirements for such items as seed, feed, fertilizer and fuel. In 1981, total farm operating expenses (which included operating capital requirements and depreciation) were $1.45 billion. The 1986 total farm operating expense requirement was $1.62 billion, up 11 per cent from 1981 but down by almost two per cent from 1985. It is estimated that 1987 total farm operating and depreciation expenses will decrease to $1.53 billion.

Fertilizer: The total volume of fertilizer sold went from 661 800 tonnes in 1985 to 637 700 tonnes in 1986. Total fertilizer expenditures in 1986 were estimated at $204.5 million, down seven per cent from 1985. Manitoba farmers used 23 per cent more fertilizer between 1981 and 1986 with fertilizer expenditures rising by almost 25 per cent over the five-year period.

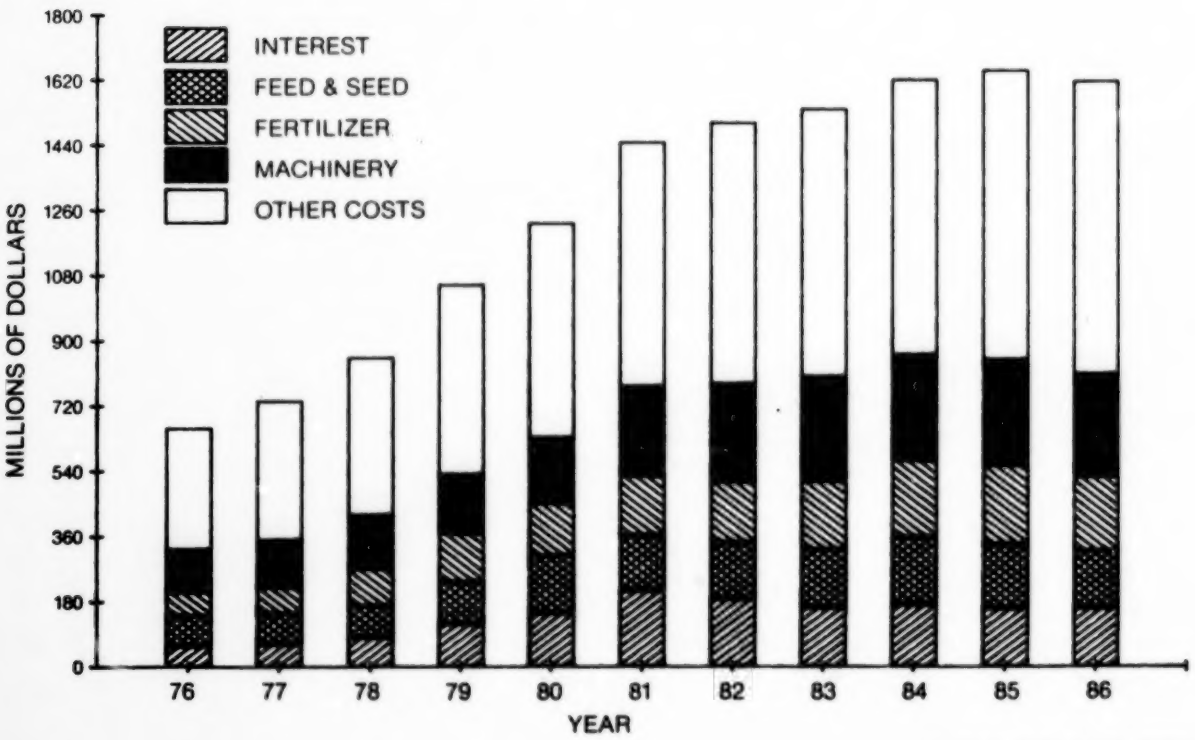
Herbicides: Statistics on herbicide use in Manitoba are limited to 2,4-D, TCA and MCPA herbicides. In 1981, over 2.1 million pounds of herbicides were used in the province. In 1984 and 1985 the level of herbicide use was estimated at 2.6 and 2.2 million pounds of active material respectively. However, in 1986 the rate of use increased by 21 per cent to 2.7 million pounds of active material.

Pesticides: Total pesticide expenditures by farmers in 1986 were estimated at $109.8 million, a decrease of five per cent from 1985. This compares with $82.3 million in 1981, and represents an increase of 33.4 per cent over the five-year period.

Fuel: The total farm expenditure for diesel, gasoline and lubricants in 1986 was $144.1 million, a decrease of nine per cent from 1985. Farm fuel rose from 10.9 per cent of total farm operating expenses in 1981 to peak at 13.1 per cent in 1983, but declined to 10.7 per cent in 1986. Primary agriculture consumes approximately 18 to 19 per cent of all fossil fuels used in Manitoba.

Machinery: Capital invested in farm machinery and equipment in 1981 was $1.82 billion. In 1986, this value was $2.2 billion, an increase of over 20 per cent from the 1981 value.

FARM CASH AND OTHER EXPENSES, 1976-1986



Datasource: Statistics Canada

Repairs: In 1981, Manitoba farmers spent $115.3 million on equipment repairs. In 1986, expenditures were estimated at $138.3 million, a five per cent increase from 1985.

Buildings: Farm expenditure for building repairs in 1986 was $25.5 million, eight and 16 per cent more than in 1985 and 1981 respectively. Many farm buildings have been fully depreciated, but still remain serviceable.

Livestock: Total livestock and related expenditures by Manitoba farmers in 1986 were estimated at $141.4 million. This is down by 11 per cent from 1985 expenditures. In comparison, total expenditure in 1981 was over $150.5 million. Livestock expenses in 1981 were 12.5 per cent of total operating expenditures compared with 10.5 per cent in 1986, when feed costs were significantly lower.

Seed: In 1986, Manitoba farmers spent $46.3 million on seed compared with $37.0 million in 1981 and $48.3 million in 1985. Seed costs in 1981 accounted for 3.0 per cent of total expenditures while in 1986 they were 3.4 per cent of the total.

Other Expenditures: Other farm expenditures include taxes, wages, rentals, insurance, electricity, telephone, etc. Of the total $1.35 billion of farm expenditures in 1986 (excluding depreciation), other expenditures amounted to $373.9 million or 27.8 per cent of the total. This was an increase of one per cent from 1985. In 1981, these expenditures accounted for $288.5 million, or 24 per cent of the total.

AGRICULTURAL PRODUCTION

Manitoba's farm cash receipts were estimated at $2.1 billion in 1986, a six per cent increase from the previous year. Almost 62 per cent of these receipts were derived from crop production, 37.5 per cent from livestock production and 0.5 per cent from the production of honey, fur, forestry products and P.M.U. operations.

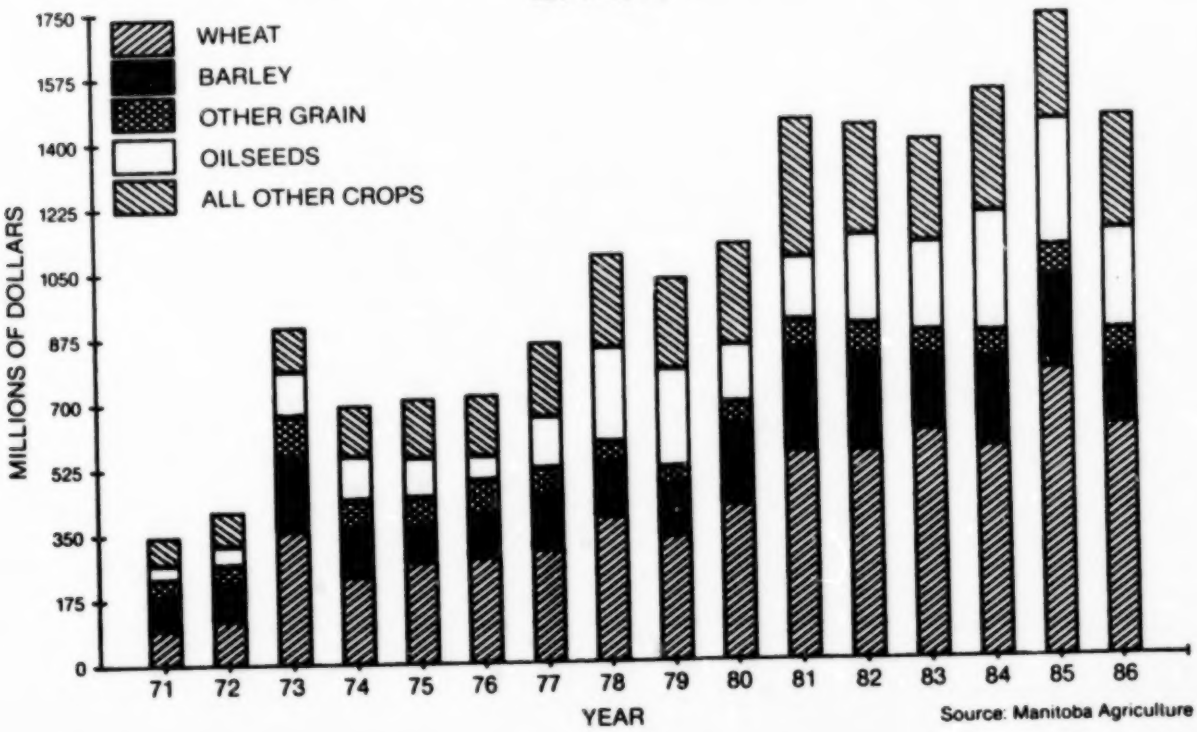
Due to a more than five-fold increase in net government supplementary, deficiency and stabilization payments to Manitoba farmers in 1987, farm cash receipts during the year are expected to decline by only 1.5 per cent from the 1986 level.

CROPS

Although Manitoba has the climate and soil to grow a wide range of crops, the traditional **grain crops of wheat and barley** contributed about one third of farm cash receipts in 1986. Collectively, these two crops occupied 58 per cent of the 11.2 million acres of cropland in 1986, unchanged from five years earlier.

Flaxseed has been a relatively important crop since the 1940's, but other **oilseed crops**, such as canola and sunflowers have gained prominence since the early 1970's. Manitoba's **flaxseed** production, at 23.7 million bushels in 1986, was 55 per cent of the national total, while 88 per cent of Canada's sunflowerseed and 15 per cent of the national canola crop were produced in the province.

FARM VALUE OF CROP PRODUCTION, 1971-1986

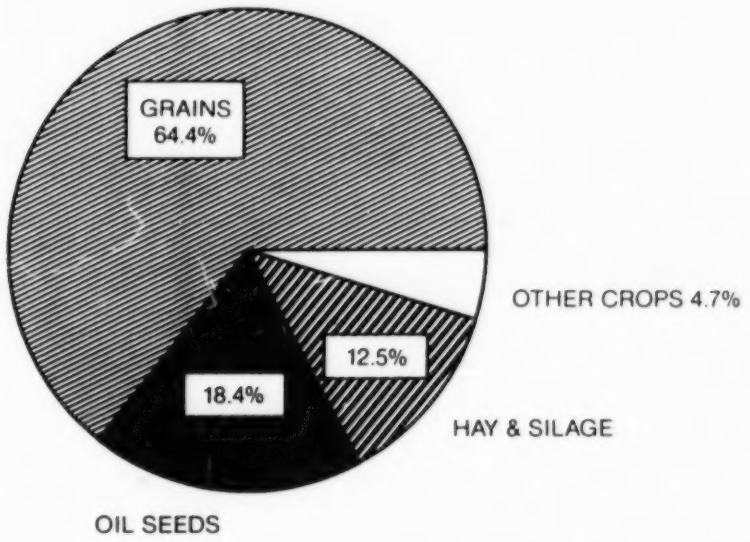


Source: Manitoba Agriculture

Canola production in Manitoba peaked at 28.0 million bushels in 1985 despite a larger area (1.35 million acres) being planted to canola in 1979. The canola acreage decreased from 1.0 million acres in 1985 to 0.98 million acres in 1986, with production decreasing to 26.0 million bushels.

Manitoba's **sunflower** acreage peaked at 380,000 acres in 1979, but declined to 160,000 acres and 56,200 acres in 1985 and 1986 respectively. Sunflowerseed production in 1986 was estimated at 60 to 70 million pounds, only one-seventh of the 1979 production and down by 60 per cent from the 1985 level. Plantings in 1987 are estimated to be up by 25 per cent to 70,000 acres.

AREA OF CROPS PLANTED IN MANITOBA, 1986



Datasource Statistics Canada

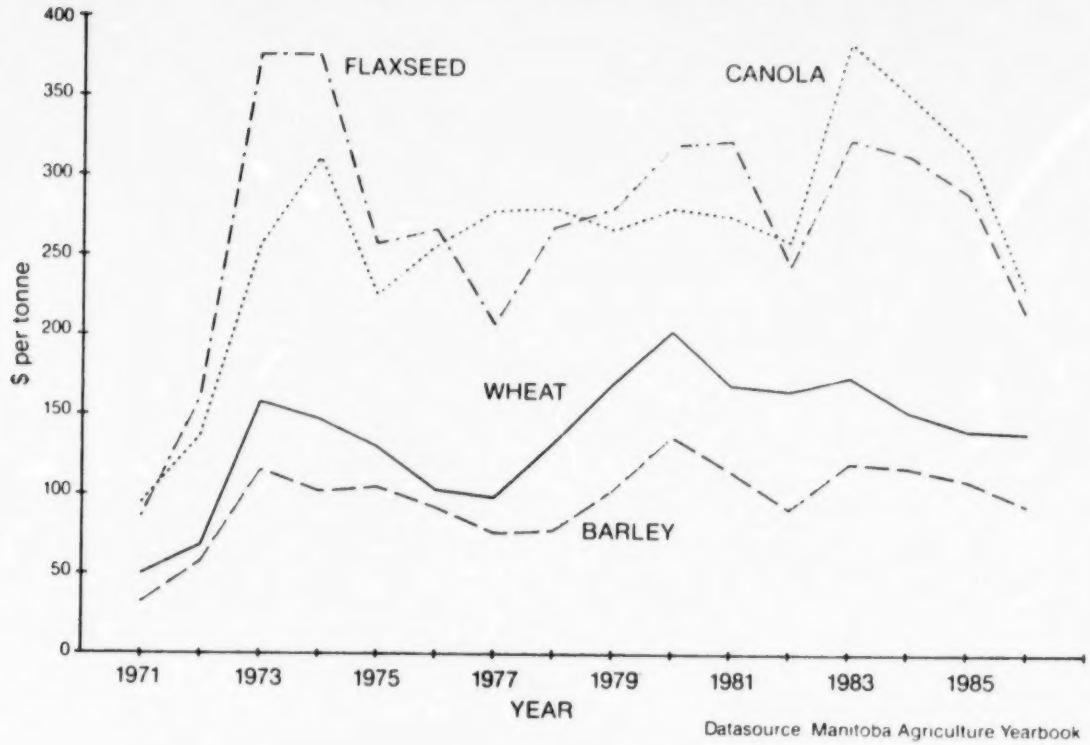
The mix of crops and area seeded each year depends to a large extent on anticipated market prices relative to production costs.

The area seeded to wheat in the province in 1987 is expected to decrease to 4.85 million acres as farmers react to significantly lower world prices for wheat and higher on-farm wheat stocks. Despite relatively large stocks of feed-grade wheat and ample supplies of U.S. corn, Manitoba farmers could be encouraged by the increased pace of barley exports to increase the area planted to barley to 1.75 million acres. Plantings of the two major oilseeds, canola and flax, are expected to be reduced in response to lower world oilseed prices.

Manitoba is not only an important source of grains and oilseeds, but is a major area for the production of **special crops** in Canada. One of the two major buckwheat-producing provinces, Manitoba supplied almost 53 per cent of the Canadian crop in 1986 with an estimated value of $5.0 million. Manitoba dry field pea production, valued at $22 million, was estimated at 50 per cent of the national crop in 1986, while 37 per cent of Canada's sugar beets, 17 per cent of the lentils and 15 per cent of the mustard-seed were produced in Manitoba. Overall, special crop plantings in 1987 (excluding corn) are expected to remain close to 1986 levels, mainly due to reduced areas of buckwheat, mustardseed and canaryseed offsetting increased areas of pulse crops (peas, beans and lentils). Manitoba's corn acreage is expected to increase by 47 per cent to 50,000 acres in 1987.

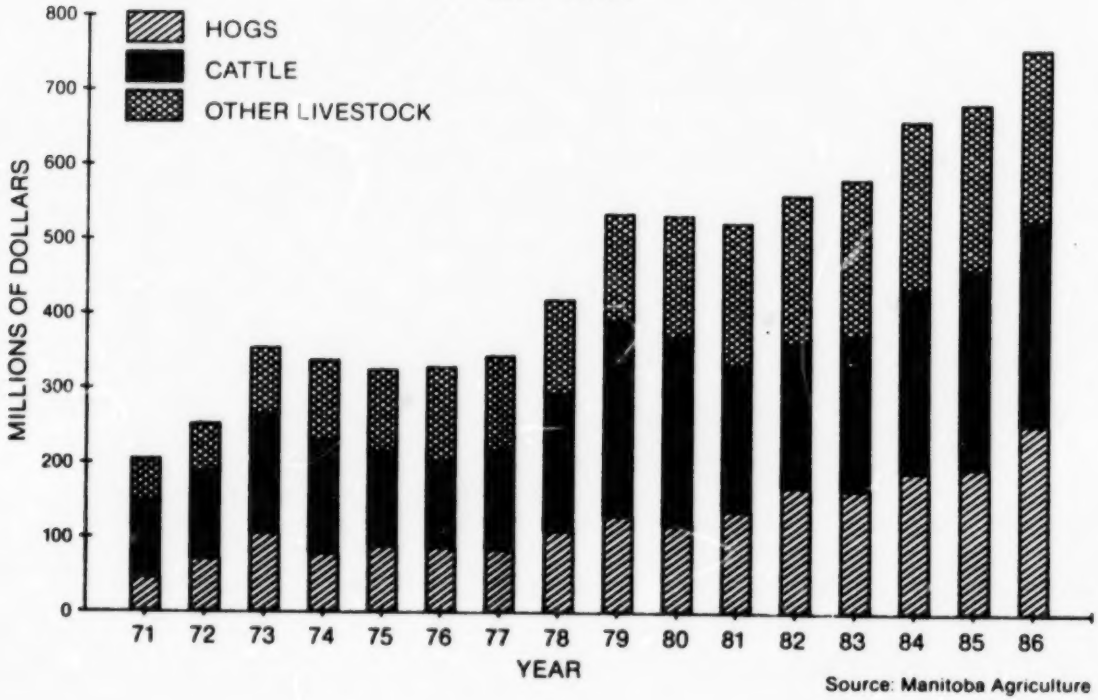
Manitoba's **vegetable** industry, although still relatively small compared to the major producing provinces of Ontario and British Columbia, has grown in importance over the years, particularly in terms of employment and import substitution. Manitoba had 154 potato producers, 35 major vegetable producers and over 250 market gardeners who employed more than 2,000 full-time and seasonal farm workers in 1986 to produce over $43 million of potatoes and vegetables. In addition, the production of fruit, mushrooms, flowers, nursery products and sod in Manitoba amounted to over $38 million in 1986.

PRICES OF SELECTED CROPS, 1971-1986



Datasource: Manitoba Agriculture Yearbook

FARM VALUE OF LIVESTOCK PRODUCTION, 1971-1986

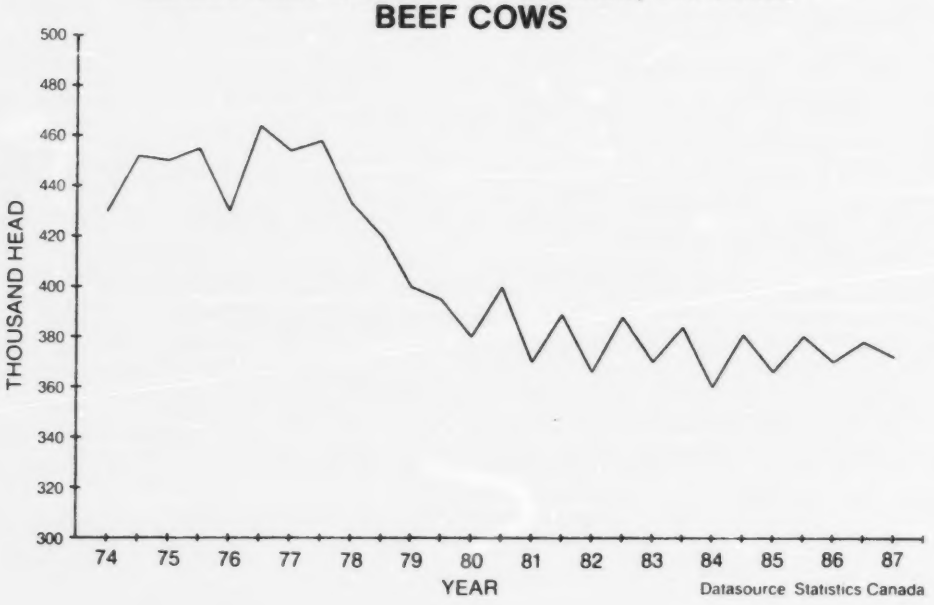


Source: Manitoba Agriculture

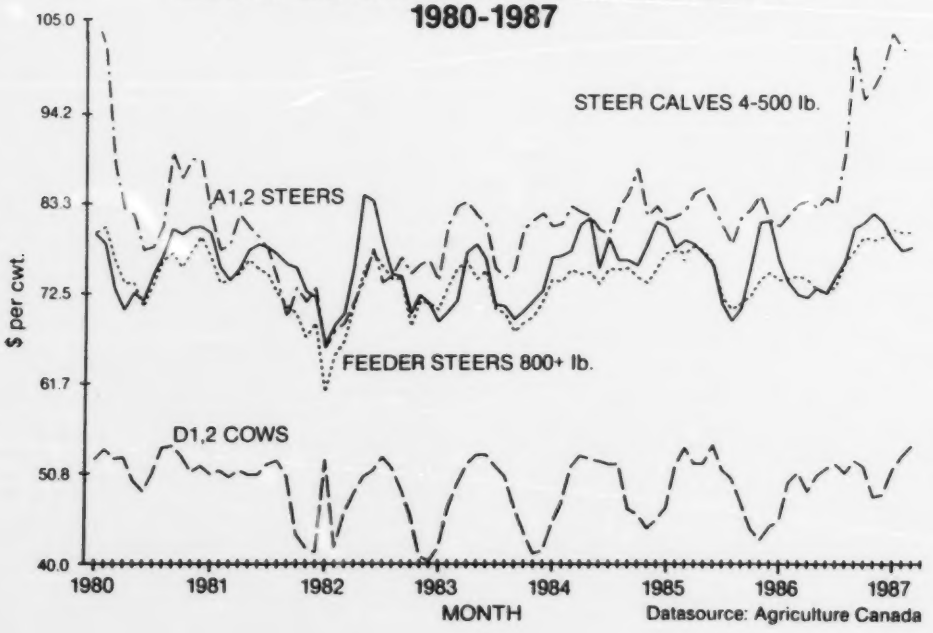
LIVESTOCK

The livestock industry in Manitoba contributed 37.5 per cent of the total farm cash receipts in 1986, an increase of 1.7 per cent from 1985 but a decrease of three per cent from the average of the previous ten years. Marketings of cattle and calves amounted to almost 40 per cent of total livestock product value and provided 15 per cent of the 1986 farm cash receipts, making beef the second largest farm commodity next to wheat. The province has over nine per cent of all cattle and calves in Canada, 11 per cent of the pigs, over four per cent of the dairy cows, almost four per cent of the sheep and lambs, seven per cent of the hens and chickens, nine per cent of the turkeys, and 11 per cent of the egg production. As four per cent of Canada's population lives in Manitoba, the province is a surplus supplier of most livestock products.

MANITOBA CATTLE ON FARMS, 1974-1987
BEEF COWS



WINNIPEG CATTLE PRICES BY MONTH
1980-1987



Prices in Manitoba for both cattle and hogs are dependent on prices in the United States and, to a lesser extent, in Eastern Canada. Thus local prices tend to be variable depending on the supply and demand for red meats particularly in the major markets of the U.S., Ontario and Quebec. This situation makes management decisions difficult for local producers, who tend to suffer from price and income instability as a result. Declining North American per capita beef consumption since the peak year of 1976, and variable profitability from beef production have resulted in a decline in the Manitoba **cattle** herd during the past ten years. Although total cattle marketings in the province continued to decline in 1985 and 1986, the number of Manitoba-origin cattle and total cattle slaughtered in Manitoba packing plants increased by over 10 per cent from 1984 to 1985 with total cattle slaughterings increasing by a further 12 per cent to 380,900 head in 1986.

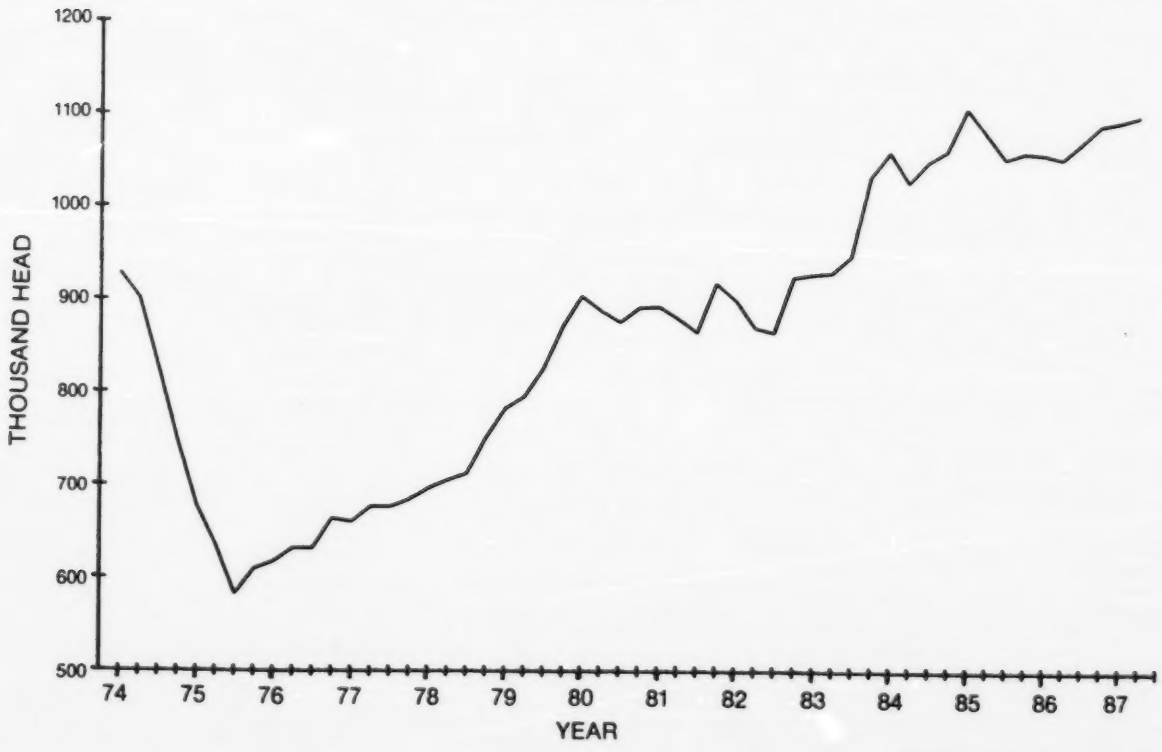
Manitoba **hog** marketings rose to 1,352,000 head in 1971, but decreased to 835,000 head in 1976. Price stabilization plans introduced since 1981 encouraged herd expansion and by 1986, hog marketings had reached over 1.74 million head. Manitoba's share of the Canadian hog market declined from 13 per cent in 1971 to nine per cent in 1982 as hog production shifted to the Central Canadian provinces, particularly Quebec. However, by the end of 1986, Manitoba's share of national marketings had increased to 11 per cent.

The **sheep** industry is much smaller than that of cattle and hogs. The number of sheep on Manitoba farms peaked at 81,300 head in 1981, but declined to 24,700 head in 1986. Only about 40 to 50 per cent of the sheep produced in Manitoba are slaughtered in inspected packing plants located in the province. A large number of producers sell their product privately to the consumer.

In 1986, Manitoba's 65,000 **dairy** cows produced milk and cream valued at $117.4 million (including supplementary payments). This was an increase of 3.6 per cent from the 1985 level.

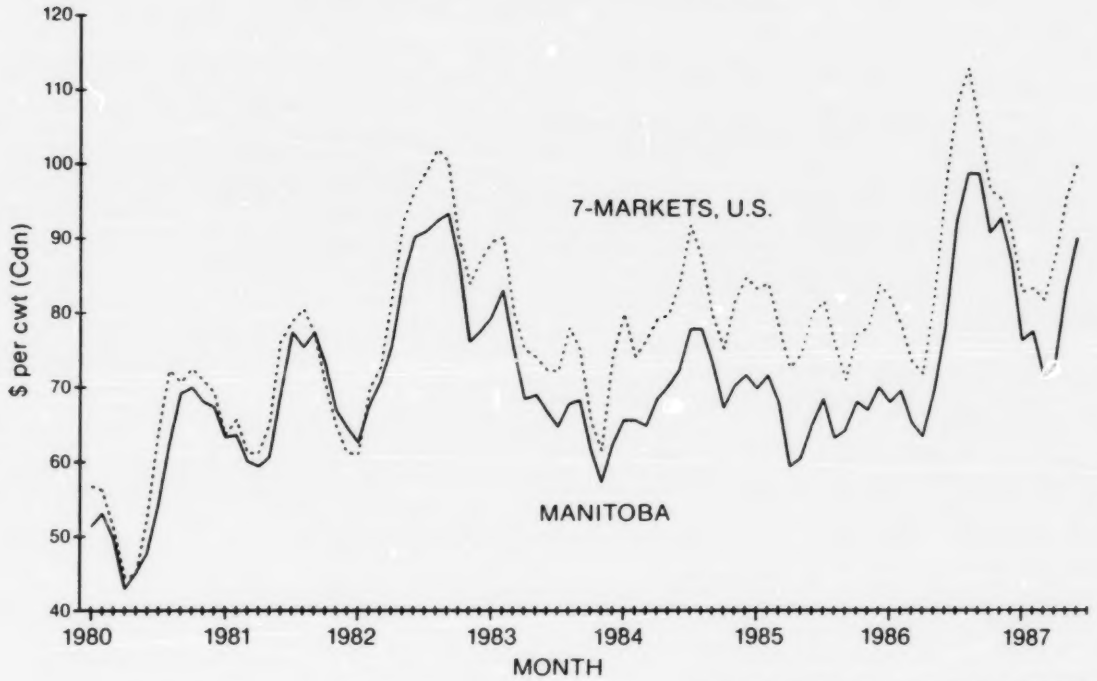
Farm receipts from **poultry and eggs** produced in the province amounted to almost $97 million in 1986, down slightly from the previous year.

MANITOBA HOGS ON FARMS BY QUARTER, 1974-87



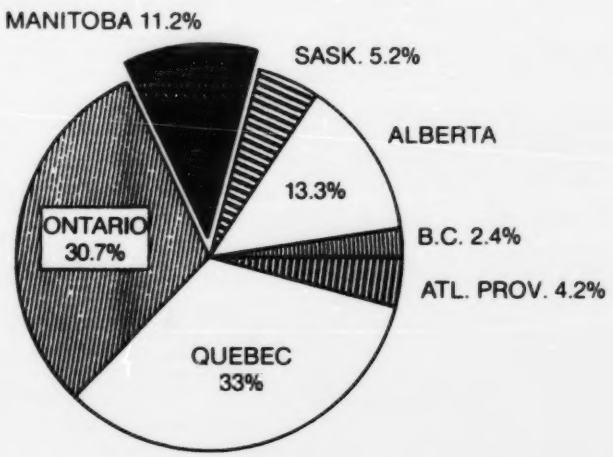
Datasource: Statistics Canada

HOG PRICES BY MONTH, 1980-87
Index 100 dressed weight



Datasource: Agriculture Canada & U.S.D.A.

HOG SLAUGHTERINGS IN CANADA BY PROVINCE OF ORIGIN 1986



1986

Datasource: Agriculture Canada

AGRICULTURAL TRADE

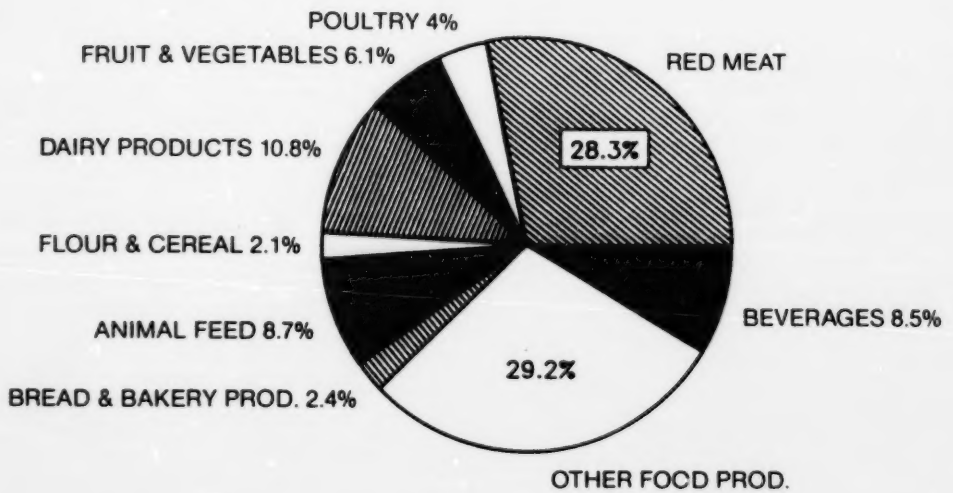
Much of Manitoba's agricultural exports are shipped in the unprocessed or semi-processed state, either to other provinces, as in the case of livestock and meat, or to other countries, as in the case of grains and oilseeds. Manitoba uses about 12 per cent of the wheat and almost 30 per cent of the barley produced in the province, the remainder being exported to eastern Canadian markets or overseas. About 40 per cent of Manitoba slaughter cattle and approximately 78 per cent of the hogs marketed in 1986 were sent out of the province, either live or in a processed state. Over 50 per cent of the turkey, almost all the chicken and about 40 per cent of the eggs produced in the province in 1986 were consumed locally. Less than one per cent of Manitoba's eggs were exported to other countries as most out-of-province shipments went to other Canadian provinces. Almost 90 per cent of Manitoba geese are shipped to other provinces, the United States, West Germany and Hong Kong. It is estimated that in 1986, about $130 million of Manitoba livestock and livestock products were sent out of the country, while approximately $600 million of unprocessed grains, oilseeds and special crops were exported. Grain exports are one of the largest single sources of foreign exchange earnings for Canada.

Canada imported $106 million worth of cheese, $607 million of fresh vegetables, $160 million of processed vegetables, $196 million of cereal and bakery products, and $451 million of meat and meat products in 1986, much of which should have been produced in Canada and, possibly, Manitoba. However, in many instances, given the lower labour costs and better weather conditions in exporting countries, it may not be economically feasible to reduce imports of some foods, such as fresh vegetables in winter.

IMPACT OF AGRICULTURE ON THE PROVINCIAL ECONOMY

While the relative importance of primary agriculture in the provincial economy has varied significantly over the past ten years, the total economic impact of the agricultural industry has been positive.

MANITOBA FOOD AND BEVERAGE PROCESSING INDUSTRY, 1984



1984

Datasource: Statistics Canada

CONTRIBUTION OF FOOD PROCESSING

The food and beverage processing industry includes the slaughtering and/or processing of meat and poultry, fruit and vegetables, cereal products, dairy products, vegetable oils, feed, seed, sugar and beverages. It is the most important manufacturing industry in Manitoba, producing $2.06 billion of goods and services in 1984, or about 33 per cent of the total manufacturing output in the province. In 1984, the food and beverage processing industry employed almost 9,595 administrative, production and related workers with wages of $222 million. Over $1.57 billion worth of inputs went into the industry in 1984 and generated a value-added of over $465 million.

The largest sector is that of meat and poultry slaughtering and processing, which employed almost 3,260 people with wages totalling $75 million in 1984. The principal raw inputs, cattle and hogs, account for over 80 per cent of the meat processing industry's total cost of materials and supplies of $514 million. Ninety-five per cent of the hogs and 72 per cent of the cattle slaughtered in the province in 1986 originated in Manitoba. Over 60 per cent of the sector's output consists of fresh pork and beef, while other processed meats comprise over 20 per cent.

Technological changes in the production of processed meats are mainly responsible for the continuing rationalization of the meat packing industry. A new hog slaughtering and processing plant, built at Neepawa, began operations in October, 1986. When Canada Packers' closed its slaughter plant in early 1987, the Neepawa plant took over most of Canada Packers' hog slaughter activity. There has been some consolidation of turkey and chicken slaughterings as well as increased productivity in recent years. In 1986, Manitoba continued to produce deboned turkey meat to supply part of the growing consumer demand for this product, particularly in Japan. The increase in the production and slaughtering of waterfowl in the province has decreased concerns about plant overcapacity.

Other important Manitoba food processing sectors include dairy, bakery, animal feed, beverage and fruit and vegetable processing. The province's feed industry produces over $180 million of output and employs 540 administrative and production staff. Principle inputs for the industry are barley, wheat, meat meal, corn and canola meal. Much of the corn and canola meal produced in Manitoba is used locally by the feed industry. Soybean meal is imported from the United States.

Manitoba has two oilseed crushing plants located at Altona and Harrowby on the Saskatchewan border. Almost all the sunflowerseed and canola crushed at the Altona plant comes from Manitoba. Output from the plants includes bulk crude and refined oil, bulk vegetable oil, retail pack refined oil, hulls and screenings. About 85-90 per cent of the total production from the Altona plant is marketed outside the province, primarily in central Canada.

The distillery at Gimli employs approximately 100 people and uses about 38 100 tonnes (1.5 million bushels) of grain corn annually. Establishment of the plant at Gimli was based on the availability of high quality and abundant supplies of water and the use of Manitoba grown grain corn. Between 1980 and 1984, Manitoba farmers supplied the bulk of the high quality corn required by the distillery. In 1985 and 1986 Manitoba grain corn production and quality was poor which resulted in virtually all the corn requirements for the distillery being met by U.S. supplies. However, in 1987 increased producer interest in growing corn could result in a larger portion of the distillery corn requirements being met by Manitoba supplies.

CONTRIBUTION OF AGRICULTURAL INDUSTRIES

In 1984, there were 34 implement manufacturing companies directly associated with agriculture. These companies employed 3,209 workers, paid $74.8 million in wages and salaries and produced $358 million worth of equipment. In the manufacture of implements, the companies in turn purchased $281 million in inputs and contributed $140 million in value-added to the final product. While the total value of this contribution to the provincial economy is not solely attributable to Manitoba agriculture, it nonetheless does indicate the significance of this sub-unit to the agricultural sector of the provincial economy.

In addition to the 34 companies directly linked to agricultural equipment manufacturing, there are a considerable number of firms more indirectly associated with the agriculture equipment industry. These firms produce inputs for agriculture as a secondary output of their operation or as an input into a larger agricultural manufacturing operation. The total value of this contribution to the agriculture sector in 1984 was estimated at $210 million. The associated labour force was estimated at over 1,700.

In Manitoba there were 428 licensed dealer establishments selling farm machinery and associated equipment and providing service facilities in 1986. In addition, 58 licensed vendors supplied farm machinery and equipment repair parts to licensed dealers in the province. A number of unlicensed facilities provide repair services for farm equipment. Although statistics are not available on the total value of sales and servicing by this unit, it would nonetheless make a further significant contribution to the agriculture sector of the provincial economy.

CONTRIBUTION OF SERVICE SECTOR

Manitoba agriculture depends on various service industries. These industries include transportation, construction, finance, insurance and real estate to name a few. It is estimated that eight per cent of total provincial transportation expenditures involved the movement of agricultural products, raw or processed. About eight per cent of Manitoba's construction takes place on farms or is for agriculture-related industries. Farm expenditures on financial, insurance or real estate services amount to approximately 12 per cent of total expenditures for these services in Manitoba. In addition, both federal and provincial governments provide services to farmers such as extension, regulatory, research, development, financial

and infrastructural. Manitoba farms used 7.5 per cent of the total electric power and over half of the chemicals consumed in the province in 1986.

Although some of the food consumed by Manitobans is imported from other provinces or countries, most of the food sold by grocery and other food stores in the province is derived from products grown and processed in Manitoba. Thus, a portion of the retail margins from these stores can be included with agriculture's contribution to the provincial economy. In 1986 Manitoba's 1,225 grocery and other food stores had $1.4 billion in total sales volume, an increase of nine per cent from the previous year. Gross margins and net profits amounted to about 19 per cent ($268 million) and 1.9 per cent ($27 million) respectively. Based on family food expenditure data, almost 60 per cent of foods purchased from Manitoba stores are grown and processed in the province. From this it can be estimated that 60 per cent ($160 million) of value-added to foods purchased by retailers is an indirect contribution of Manitoba agriculture to the economy. Food wholesaling activities also contribute to the economy.

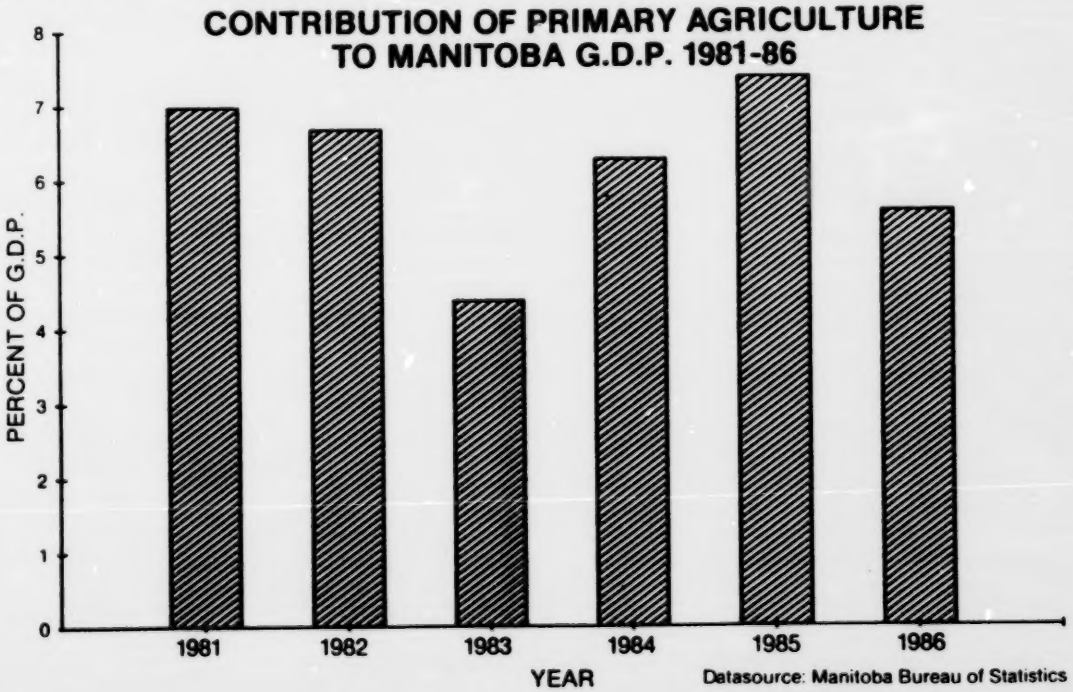
TOTAL IMPACT OF AGRICULTURE

One measure of provincial output is the Gross Domestic Product at factor cost which basically is an aggregate of net profits and incomes, including wages, depreciation and investment income. Agriculture's direct contribution to the G.D.P. increased to 10.2 per cent in 1973, but declined to 7.7 per cent in 1976, 7.0 per cent in 1981, 6.7 per cent in 1982 and 4.4 per cent in 1983. Net farm income improved and primary agriculture's contribution to the GDP rose to 6.3 per cent in 1984 and to 7.4 per cent in 1985, but declined to 5.6 per cent in 1986. Agriculture also makes an indirect contribution to the provincial economy through income derived from agriculture-connected industries. These include the food processing industry, industries which supply inputs to agriculture, as well as the wholesale, retail and other service sector components which supply services to farmers and agriculture-related workers. When agriculture's indirect contribution to the G.D.P. was added to its direct contribution, an estimated 13.4 per cent of Manitoba's G.D.P. was attributed to agriculture in 1986 compared to 16.4 per cent in 1985 and 11.0 per cent in 1984. For every dollar of net income produced by primary agriculture in Manitoba, $1.62 is generated in the overall Manitoba economy. Agriculture, directly or indirectly, accounted for about one dollar in seven of production in Manitoba's economy in 1986.

Another method of assessing the impact agriculture has on the provincial economy is to compare the value-added for agricultural inputs to that for the goods producing sector as a whole in Manitoba. In 1986, 20.5 per cent of total value-added was provided by agriculture compared with 25.4 per cent a year earlier.

There were 46,000 persons directly employed in agriculture in Manitoba in 1986. In addition, 32,500 persons were employed in other areas of the provincial economy as a direct result of the agricultural industry, bringing total employment generated by agriculture to 16.3 per cent of Manitoba's labour force in 1986. This means that one job in six was the result of agricultural production. For every one job lost on farms in 1986, two to three jobs were lost in other areas of the Manitoba economy. In addition to stimulating employment locally, agriculture in Manitoba is directly responsible for about 30,000 jobs in other parts of Canada.

CONTRIBUTION OF PRIMARY AGRICULTURE TO MANITOBA G.D.P. 1981-86



Datasource: Manitoba Bureau of Statistics